

STEEL STEAMER or MOTORSHIP.

Received at London Office 19 SEP 1930

State if Report has been sent on the Freeboard of the Vessel **Yes (Kohe)**.State if Report is sent on the Machinery of the Vessel **Yes.**Date of completion of report **25th August, 1930.**Port of **NAGASAKI.**No. **1743.**Survey held at **NAGASAKI.**Date First Survey **26th November 1929** Last Survey **15th August, 1930.**On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw) **Steel Twin Screw Motor Ship "TOKAI MARU".**State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) **Complete Superstructure Vessel, without tonnage openings.**State Type of Erections **Forecastle.**TONNAGE under Tonnage Deck... **5,719.05**CLASS ***100AI.**State if with freeboard as condition of Class **Yes**Built at **Nagasaki.**Do. of space or spaces between Tonnage Dk. and Upper Dk. **2,093.11**Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a) **L 445.0**Launched **15th May 1930.** Yard No. **472.**Total **7,812.16**Breadth (greatest moulded) **B 60.5**Builders **Nagasaki Works, Mitsubishi Zosen Kaisha, Ltd.,**Gross Tonnage **8,365.28**Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) **D 40.75**Owners **Osaka Shosen Kabushiki Kaisha.**Register Tonnage **5,046.44**1st Longitudinal Number (L x D) **= 18134**Managers **/**
(Where necessary to be entered in Reg. Book.)

REGISTERED DIMENSIONS.

Length **445.0**Breadth **60.5**Depth **40.75**Framing Depth "d" at middle of length. See Sec. 3 (1d) **19.42**Proportions—Depth to Length—Uppermost continuous deck to top of keel **10.92**
Do. Long Bridge to top of keel **/**Residence **Osaka.**Port of Registry **Osaka.**

If surveyed while building, afloat, or in dry dock

While Building.

FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships	33		Bracket Floors, Frame	B.A. 7 3 1/2 .34	
" " from 1/2 length to Collision bulkhead	27		" " Reversed Frame	" 6 3 .40	
" " in peaks	24		" " Vertical Struts	(C.H. 10x3 1/2 x 3 1/2 .42 B.A. 6 x 3 .40	
SIDE FRAMING.			Centre Girder, depth and thickness amidships	46 .62-.48	
Frame Amidships, Angle	11 3 1/2 .58 extends to U.Dk. web cut down to form 9x3 1/2 x .58L between 3rd & 2nd decks, and 7x3 1/2 x .58L between 2nd deck & U.Dk.		" " top Angles	D.A. 3 1/2 x 3 1/2 .56-.52	
" " Extends up to			" " bottom Angles	D.A. 5x3 .66-.60	
Reversed Frame Amidships, Angle			Side Girders, No. each side and thickness	2 .44 .48	where flanged
" " Extends up to	/		Margin Plate depth (excl. of flange) and thickness	40 1/2 .56	
Depth of Framing Girder	11		" " Vertical Angle to Tank side Bracket abaft 15% from stem	5 5 .48	
Frames in Uppermost Continuous 'tween Decks, Angle	7 3 1/2 .58		" " Vertical Angle to Tank side Bracket forward 15% from stem	DA 5 5 .48	
" " Second 'tween Decks, Angle	9 3 1/2 .58		" " Gussets, spacing and scantling abaft 1/2 len. from stem	.48 continuous	
" " Third " " " "	/		" " Gussets, spacing and scantling forward 1/2 len. from stem	Flat tank.	
Framing in Peaks, Angle or	8 3 1/2 .48		Tank Side Brackets, height above base line at toe of Frame and thickness	82 above top of keel	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8 5 1/2		INNER BOTTOM PLATING.		
State if Frame Joggled	Yes		Breadth and thickness of Middle Line Strake	56 .56-.46	
PANTING ARRANGEMENTS (Sec. 7), state system and particulars	Deep frame arrangement 12x3 1/2 x .62 B.A. extends to U.Dk. or F'cle Dk. web cut down to form 8x3 1/2 x .62A between U.Dk. and F'cle Dk. 7x3 1/2 x .34 BA between 3rd to U.Dk. at frame 152.		Thickness of remainder in Holds	.48-.42	
STRENGTHENING OF BOTTOM FORWARD. State Particulars	Add. int. side girders fitted 4-0 apart & ght extending as far as practicable. 8 strakes of shell plating next to keel maintained 67 to coll. bulkhead.		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room?	Yes	
SINGLE BOTTOM.			BEAMS.		
Floors, Depth and thickness at mid-line in Holds			Uppermost Continuous Deck, amidships	8x3x3x.48 (141-151). 8x3x3x.42 (152-159). 8x3x3x.40 (69-84). 8x3x3x.36 (115-132, 28-44)	
Height of Brackets at side above base line at toe of frame			" " Spacing	33	
Middle Line Keelson, on Floors, Angles			Second Deck, amidships, Angle	8x3x3x.48 (141-172). 8x3x3x.36 (68-85). 8x3x3x.36 (50-62).	
" " Through Plate or Intercostal Plate			" " Spacing	33	
" " Foundation Plate on Floors			Third Deck, amidships, Angle	8x3x3x.48 (89-100). 11x3 1/2 x .46 (65-87).	
" " Flat Plate Keel Angles			" " Spacing	33	
Side Keelsons, No. each side			Fourth Deck, amidships, Angle		
" " thickness of Intercostal Plate			" " Spacing		
" " Angles			Poop Deck, Angle		
DOUBLE BOTTOM.			" " Spacing		
Solid Floors, thickness and spacing	.44		Bridge Deck, Angle	6 x 3 .36	
" " Are Frame and Reversed Frame joggled?	No		" " Spacing	alt frames (about)	
Bracket Floors, breadth and thickness at middle line	34 .44		Forecastle Deck, Angle	8x3x3x.42	
" " breadth and thickness at margin plate	34 .44		" " Spacing	24 x 27	

PILLARS AND DECKS

PILLARS, No. of Rows.....	INCHES IN SHIP.			Any Departure from Approved Plans to be Noted.			INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
" in 'tween Decks, Size and Spacing.....	Widely Spaced							
" " " " " "	Pillars							
" in Holds " " "								
" " " " " "								
Centre Line Bulkhead.								
Stiffeners and Spacing.....								
Plating, thickness of								
STRINGERS AND DECKS.								
Uppermost Continuous Deck.								
Stringer Plate, breadth and thickness in Wells								
" " " " in way of Bridge	64	.66						
" Angle in Wells	6	6	.66					
Thickness of Plating abreast Deck openings in way of Wells52	at cargo hatchway						
Thickness of Plating abreast Deck openings in way of Bridge49	at casing.						
Thickness of Plating within line of openings...	.42-.36							
If Sheathed, material and thickness	3" O.P. where exposed in way of B.Dk.							
Second Deck.	2 1/2" O.P. inside dk house.							
Stringer Plate, breadth and thickness in Wells...								
Stringer Plate, breadth and thickness in way of Bridge	50 1/2	.44						
Thickness of Plating abreast Deck openings in way of Wells40-.34							
Thickness of Plating abreast Deck openings in way of Bridge40							
Thickness of Plating within line of openings...	.34-.32							
If Sheathed, material and thickness	/							
Third Deck.								
Stringer Plate, breadth and thickness.....	.34							
If Plated, state thickness.....	.42 in way of Deep tank.							
Fourth Deck.	.30							
Stringer Plate, breadth and thickness.....	.42 in way of Deep tank.							
If Plated, state thickness	/							
Poop Deck.								
Stringer Plate, breadth and thickness	/							
Plating, Sheathing, material and thickness ...	/							
Bridge Deck.								
Stringer Plate, breadth and thickness.....	30	.32						
Plating, Sheathing, material and thickness25-.20 Tie plate							
Forecastle Deck.	3" O.P. where exposed							
Stringer Plate, breadth and thickness	2 1/2" O.P. inside house.							
Plating, Sheathing, material and thickness36							

SHELL PLATING.

SCANTLINGS.

RIVETING.

STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.				RIVETING.			
	AMIDSHIPS.		FORWARD.	AFT.		State if Joggled?	No	BUTTS.					
	Breadth.	Thickness.	Thickness.	Thickness.				SINGLE OR DOUBLE.	RIVETS.				
									Diam.	Spacing cr. to cr.			
	Inches.	Inches.	Inches.	Inches.				No. of ROWS OF RIVETS.	Diam.	Spacing cr. to cr.	STRAPPED OR LAPPED.		
FLAT PLATE KEEL	55	.85	.75	.75		Double	1 4	4-3	1	4"-3½"			
„ Dble. (if any)		/				/		/					
BOTTOM PLATING, No. of Strakes5 }		.67	.67	.52		"	7/8 3½	4-3	7/8	3½"-3½"			
BILGE PLATING, No. of Strakes1 }		.67	.52	.52	Three strakes next to keel maintained .67 to coll.bulkhd.	"	" "	"	"	"			
SIDE PLATING, No. of Strakes }		.65	.49	.49		"	" "	3	"	"			
UPPER DECK, Sheer-strake in Wells }	69	.78	.49	.49		"	1 4	4-3	1	4"-3½"			
UPPER DECK, Sheer-strake in Bridge ... }		/				/							
STRAKE BELOW Sheer-strake in Wells }		.65	.49	.49		"	7/8 3½	4-3	7/8	3½"-3½"			
STRAKE BELOW Sheer-strake in Bridge ... }		/						/					
POOP SIDE PLATING		/						/					
BRIDGE SIDE PLATING ...		/						/					
FORECASTLE SIDE PLATING			.44			1	7/8 3	1	7/8	2 5/8"			

WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—

Extending to Upper Deck (Sec. 3 c)

1

" Deck next below

7

As per Rule

7

For particulars of remaining bulkheads please see approved plan.

	Plating Thickness.	STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHD., Upper Deck	160.	28-26	24	6x3x.38BA	24
" " Second	160	32-28	24	4x3x.38BA	24
" " Third	110	28-26	30	6x3x.38BA	30
" " Fourth	110	28-26	30	6x3x.38BA	30
" " Holds	110	48-30	10x3x.31x.46C	30	30
COLLISION " (in Hold)	160	56-34	7x3x.34BA	24	Semibox beam pl.
AFTER PEAK "	10	70-30	8x3x.36BA	24	

	Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
KEEL, Bar	/			
STEM	R.S.	10x2 5/8	Larnarkshire Steel Co.	
STERN FRAME { Propeller Bracket	C.S. approved plan.		Kobe Steel Works.	
" Rudder "	"			
RUDDER—A x D		773.50		
Speed of Vessel		14 1/2		
RUDDER mainpiece at head	F.S.	14	Sumitomo Steel Co. Osaka.	
" " heel		11		
" how constructed	Built.	See approved plan.		
" double or single plate	Double	.50		
" coupling, vertical or horizontal	Vertical	36"x33"		

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) Open Hearth Process.

STEEL. Larnarkshire Stl Co. David Colville & Sons Ltd. Consett Iron Co. Frodingham Iron & Steel Works. Bolckow, Vaughan & Co. The steel Co of Scotland. Pease & Partners Ltd. Dorman Long & Co. Mannesmannrohren-Werke Abt. Schulz Knaudt of Hucking. Vereinigte Stahlwerke A.G. Hamburg. Vereinigte Stahlwerke A.G. Hoerder Verein of Hoerde. Vereinigte Stahlwerke A.G. Hutte R.M. Meiderich. Vereinigte Stahlwerke A.G. Niederrheinische Hutte Vereinigte Stahlwerke A.G. Stahl und Walzwerke Thyssen.

GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	51-2-2	N.B.	4107	22-11-29.	Anchor Cert.No.1395.
	2nd "	51-3-8	"	4106	"	" " 1394.
	3rd "	51-3-5	"	4105	"	" " 1393.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop — ft., R.Q.D. — ft., Bridge — ft., Forecastle 40.0 ft.
(in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated /

No. and Material of Decks (this information is to be given as it should appear in the Register Book) 3 dks. stl. U.Dk. part W.S.

Official No. 36099. ; Signal Letters V.G.J.C. Is bottom of Vessel coated with cement / if not give particulars of composition Fore & Aft Peak Tanks and F.W.Tanks cement washed. F.O. Tanks not coated.

PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	Water Capacity. Tons.	Where Fitted.	*Length. Feet.	Water Capacity. Tons.
Double bottom, aft,	126.5	225.49	Fore peak tank,	25.27	95.79
Double bottom, under Engines and Boilers,	/	/	After peak tank,	20.56	88.79
Double bottom, if under Engines only,	63.25	429.33	Wing tanks (P & S),	104.5	977.66
Double bottom, if under Boilers only,	/	/	Deep tank, forward,	35.75	1184.51
Double bottom, forward,	183.5	640.61	Other tanks, if fitted,		
Total capacity of double bottom	373.25	1295.43	(If necessary, furnish further information by sketch.)		
* The wells are not to be included in the lengths of the tanks.					

Order for Special Survey No. 92.

Date 16th April 1929
LONDON.

Dates of Surveys held while building

1929.

Nov. 26.29 Dec 4.6.11.18.21.26.

1930. Jan 6.10.13.17.21.27.30.31 Feb 3.15.17.19.21.27 Mar 4.10.11.14.17.20
24.26.27.28.29 Apr 1.2.7.9.12.15.17.19.22.26.30 May 2.3.5.9.12.14.15.17
18.24.30 June 3.9.17.19 July 1.3.7.11.12.17.22.24 Aug 1.2.4.6.9.11.13.
14.15.

Total No. of Visits 76.